

Serial No. 10/783,499

Docket No. Zipfel 1

REMARKS

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Independent claim 1—and thus its dependent claims 3-8—have been amended.

The rejection of claims 9-11, 13-17, 19-26, 30-33, 34-39, 41-42 and 63-69 is respectfully traversed.

In particular, it is respectfully submitted that the Advisory actions of 10/23/2006 and 12/07/2006 focused only limitations that were argued by applicant vis-à-vis claims 1-8—specifically the question of whether the recitation of a “current” encompasses an “average” current.

Significant and clear other limitations in claims 9-11, 13-17, 19-26, 30-33, 34-39, 41-42 and 63-69 were pointed to by applicant in, for example, applicant's Response to Office Action dated 11/20/2006 and in previously papers as well.

Claims 63-69

Applicant has pointed out in previous communications in this case that independent claim 63, and thus each of its dependent claims 64-69, contains limitations that distinguish the invention from Prokin. Applicant does not believe that any of the Office actions or Advisory actions have addressed those points.

1) Lines 7 - 9 of claim 63 call for load filters with unique characteristics, specifically, “each load filter having a passband that includes said particular switching frequency and having a stop band at frequencies higher than said particular switching frequency.” These are, for example, applicant's filters 39 and 43 of FIG. 4A. Prokin does not have any such filters. And certainly Prokin does not have any such filters that meet the unique limitation above relative to their passband and stop band.

2) Lines 17-18 of claim 63 say that the two switching signals for the two loads have respective fundamental switching components are of substantially equal magnitude and substantially equal phase. In Prokin, the switching components at the fundamental (modulating, carrier) frequency are of opposite phase. On this point, applicant has previously pointed out that Prokin indicates at col. 7, lines 53-63 that the pulse-width modulated signals PWM1, PWM2, PWM3 and PWM4 are typically counter phased for switches of the same load phase. Since Prokin's signals are “counter phased” this means

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that all of the frequency components of PWM1 (PWM3) are the inverse of the corresponding components in PWM2 (PWM4). That is they are of opposite phase, not of "equal" phase as applicant's claims recite.

Claims 9-11, 13-17, 19-26, 30-33, 34-39, 41-42 and 63-69

Independent claims 9, 34, 63 recite that substantially all of the current at baseband frequencies flowing out of one or more of the loads flows into one or more of the others of the loads or words to like effect. See claim 9, lines 6-8; claim 34, lines 15-17; claim 63, lines 20-23. In terms of applicant's FIG. 4 picture, substantially all of the baseband current flowing out of load L1 flows into load L2, and vice versa, and there is negligible current through power supply 32.

By contrast, in Prokin, substantially all of the current at baseband frequencies flowing out of one or more of said loads does not flow into the other load. Rather, in Prokin that current flows into the power supply. This is because in Prokin, when baseband current flows through load 51 in a given direction, baseband current also flows through load 52 in the same direction. Thus Prokin cannot meet the aforementioned limitations in applicant's claims.

Looking at the FIGS. and thinking about the baseband currents graphically, when the baseband current in applicant's load L1 is flowing (say) down toward power supply 32, that current makes a kind of U-turn, bypassing power supply 32 and entering load L2 (and vice versa). In Prokin, by contrast when the baseband current in load 51 is flowing to (say) the left toward power supply 1, the baseband current in load 52 is also flowing to the left toward power supply 1. Thus the currents in both loads 51 and 52 flow into power supply 1, not from one to the other as applicant's claims recite.

There are many ways in which it can be seen that Prokin's currents are equal to one another and flow in the same direction at the same time, as just mentioned. The examiner is respectfully directed to the discussion **How Do We Know That Prokin's Load Currents Flow in the Same Direction?** in applicant's Response to Office Action dated 11/10/2006 at pp. 17-19.

Claims 1 and 3-8

Independent claim 1—and thus its dependent claims 3-8—have been amended to

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refer to "instantaneous" current.

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In telephone conversations on or about November 2 and 8, 2006 with Examiner Shingleton, the undersigned understood the examiner to say that he thought that such an amendment would distinguish over the art of record.

Applicant is making this amendment in the interest of furthering prosecution and does not intend this amendment to signify any acquiescence on applicant's part as to the question of whether the recitation of a "current" can be read on an "average" current.

Claims 24-26, 32, 33, 36-39 and 63-68

Applicant continues to urge that the recitation in these claims of a common mode inductor is a further distinguishing feature of the invention that would not be obvious to include in the Prokin circuit, for at least the reasons that applicant has previously advanced.

Withdrawn Claims

In view of the foregoing discussion indicating that the claims currently under examination are allowable, it is respectfully requested that the withdrawn claims be rejoined in this case and be allowed along with the claims now pending.

Reconsideration is requested.

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